

CE

Detection of *Legionella pneumophila* DNA



Legionella pneumophila is a Gram-negative freshwater bacterium which is found in natural aquatic environments worldwide and infects free-living protozoa. Artificial water systems provide environments conducive to the growth and dissemination of this bacterium. *L. pneumophila* from these sources is capable to infect humans causing Legionellosis. The illness varies in severity from a mild febrile illness (nonpneumonic Pontiac fever) to a serious and sometimes fatal form of pneumonia (Legionnaires' Disease, LD). While Pontiac fever is usually self-limiting, untreated Legionnaires' disease can be fatal. Timely diagnosis and administration of appropriate antibiotic treatment are important keys to lethal outcome prevention.

Development of Legionellosis



Pipe biofilm and corrosion, potential low chlorine levels and stagnant water can lead to *Legionella* growth in public water system



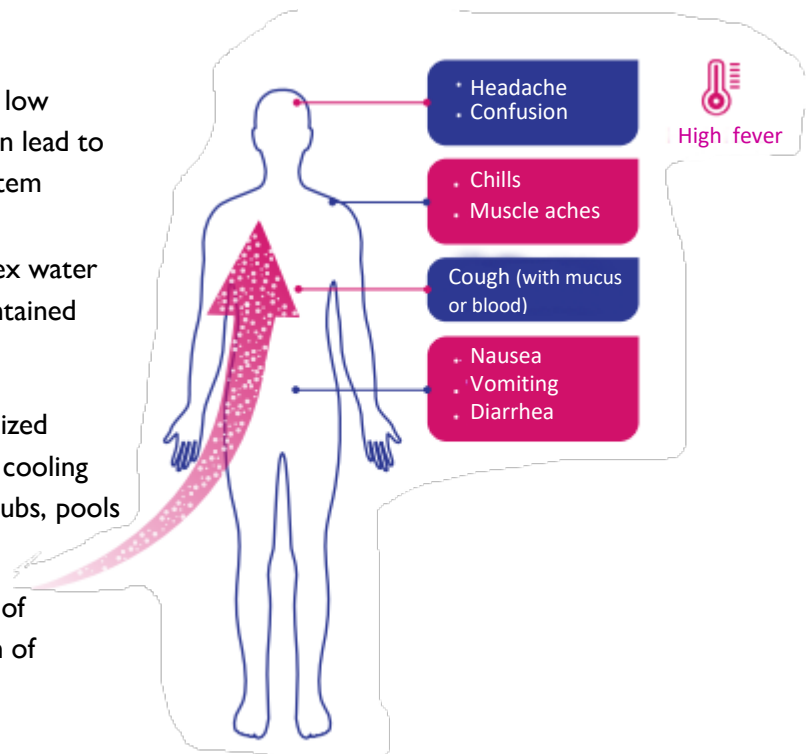
Legionella grows best in large, complex water systems that are not adequately maintained



Water containing *Legionella* is aerosolized through water-based devices, such as cooling equipment, humidifiers, misters, hot tubs, pools and other



Forms of transmission are inhalation of contaminated aerosols and aspiration of contaminated water or ice



Persons are mainly susceptible to contract the disease:

- Over the age of 50
- A current or former smoker
- Have a chronic disease such as diabetes or kidney failure
- Have a weakened or suppressed immune system

Laboratory diagnosis

Before the beginning of intensive therapy, the Legionnaires' disease must be differentiated from other lung diseases which are similar in symptomatology. Getting the right diagnosis and treatment may help prevent life-threatening complications.

Culture test	It can detect all species and serogroups of <i>Legionella</i> but usually takes three to five days to get the results
Urinary antigen test	Positive test can be reported within 48 to 72 hours from the onset of the symptoms. The limitation is that it detects only <i>L. pneumophila</i> serogroup 1
Serology test	Important tool for case finding during outbreak investigations and for late or retrospective diagnosis
PCR	The advantages of this fast method are sensitivity and accuracy. It can detect all species and serogroups from the <i>Legionella</i> family

5598 RealBest DNA Legionella pneumophila

Kit for detection of *Legionella pneumophila* DNA in clinical specimens (oropharyngeal swabs, sputum, pleural fluid, bronchoalveolar lavage fluid) and environmental samples (water samples, surface swabs)

Cat №	Kit name	Compatible block-type PCR thermal cyclers	Tests
5598 €	RealBest DNA Legionella pneumophila	CFX 96 (Bio-Rad), Gentier 96/R (Xi'an TianLong, Science and Technology Co., Ltd.), DTprime (DNA-Technology) and others with similar characteristics after validation	48

Kit features

- **Easy-to-use:** just add a sample of eluted NA into a tube with Lyophilized Ready Master Mix;
- **Reliability of analysis:** Noncompetitive Internal Control sample
- **Convenience of storage and transportation:** no freezing required, transportation up to 26 °C for no more than 10 days is acceptable
- **Universal and rapid amplification protocol** for all infections
- **Shelf life** of kit is 12 months (2-8 °C)

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